Brianna Sampson

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SUMMARY OF QUALIFICATIONS

- Computer Literacy: Microsoft Office, TOPCAT, SAOimageDS9, Python, and MATLAB
- Data interpretation and processing and statistical analysis
- Knowledgeable in multiple areas of Physics including electronics, materials science and environmental science
- Analysis using theoretical concepts
- Utilization of physics and mathematics programs for experiments
- Event Planning
- Audio-Visual Technology and equipment
- Public Speaking
- Project Management

EDUCATION

The University of the West Indies, St. Augustine **September 2022 - Present**
B.Sc. General with a Major in Physics

St. Joseph's Convent, St. Joseph **September 2014 - June 2021**
Valedictorian 2019
Head Girl 2020- 2021

- Caribbean Advanced Proficiency Examination: Applied Mathematics, Chemistry, Physics, Pure Mathematics, Caribbean Studies, Communication Studies.
- Caribbean Secondary Education Certificate: 8 subjects

WORK EXPERIENCE

National Radio Astronomy Observatory (NRAO), Virginia, United States of America.
Radio Astronomy Data Imaging and Analysis Lab (RADIAL)
Remote near-to-peer mentor **June 2024 - August 2024**

- Checked in weekly with RADIAL interns to discuss their personal experiences and problems and discussed solutions with the internship coordinator to assist them.
- Helped international students acquire bank accounts for stipends.
- Critiqued final presentations.

RADIAL Intern **June 2023 - August 2023**

- Paired with a research mentor and worked on discovering giant galaxies most prominent in the radio wavelength.

- Developed code in Python to investigate galaxy candidates and created easily viewable pictures of them.
- Visually inspected the images and removed any with abnormal shapes of the galaxy candidates.
- Analyzed the reliability of the data by calibrating it with a data set of better image resolution.
- Presented the research at the 243rd American Astronomical Society (AAS) convention (January 2024)

University of Wisconsin-Madison, United States of America
Remote Researcher **June 2024 - August 2024**

- Assisted in the startup process of software that could recognize and categorize Active Galactic Nuclei (AGN) triples.

A&B Woodworking, Enterprise, Chaguanas, Trinidad and Tobago.
Woodworking Assistant **July 2021 - August 2021**
May 2022 - August 2022

- Expertise in operating light woodworking machines and tools and knowledge of their use in the industry.
- Developed an appreciation for the quality and standards of various projects.
- Detected and fixed faulty machinery and tools.
- Assisted in the construction and delivery of projects according to client specifications.

KEY RESEARCH PROJECTS

The University of the West Indies, St. Augustine **September 2024 - December 2024**

Investigating the Use of Cosmic Ray Detectors for Hurricane Predictions in the Caribbean Region

- Conducted experiments to detect cosmic rays using the DECO (Distributed Electronic Cosmic-ray Observatory) application installed on a smartphone.
- Researched hurricanes, traditional hurricane detection systems and their limitations, muons, and how muography could be combined with traditional weather systems to monitor mesoscale convective systems and enhance hurricane predictions.